PREVENTIVE AND PUBLIC HEALTH ASPECT OF RHEUMATIC FEVER IN CHILDREN*

One of the first references to rheumatic heart disease was made in 1789, when Jenner reported to the Fleece Medical Society "Concerning diseases of the heart following acute rheumatism, illustrated by dissections." During the past twenty years, pathologists have demonstrated that rheumatic fever is a systemic disease, probably an infection, producing lesions throughout the body. The heart seems particularly susceptible, both to initial injury and later permanent scarring, and it is this fact which makes rheumatic fever a disease of exceptional importance in the field of public health.

As Swift says:

"Compare this disease with poliomyelitis—both killing only a small number in the initial attack—one crippling obviously and one insidiously—one conferring immunity and the other presenting recurring attacks with increased cardiac crippling. The economic importance of rheumatic fever is much greater than that of poliomyelitis, but the relative attention given them by the lay public, health authorities and vital statisticians is in striking contrast. Searching among reported deaths from heart disease gives only an inkling of the relative part played by rheumatic fever."

Rheumatic fever today is one of the foremost health problems of childhood. Between the ages of 5 and 9, deaths from it are outnumbered only by those of the four principal communicable diseases of childhood. Between 10 and 14, it is the leading cause of death; between 15 and 24 it is second only to tuberculosis.

There is confirmatory evidence of the presence of rheumatic heart disease following rheumatic fever with mild or unnoticed symptoms, and since the period of active rheumatic fever may be deceiving in its apparent mildness, great care should be given to accurate observations and diagnostic technique. How approach this problem? We do not know the specific etiologic agent. However, we do have many helpful facts: we know that there is a strong familial tendency towards the disease; 8 per cent to 10 per cent of the exposed persons in rheumatic families acquire the disease as against 3 per cent in control families. There is also possibly an hereditary factor. We know that the first attack occurs most commonly between four and fifteen years, and is rarely seen before two years or after twenty years. We know that the peak of attacks is in late winter and early spring and that damp, cold climates seem most unfavorable. We know that there is a close association with the streptococcus and that sore throat and respiratory infections are especially apt to incite trouble; also and probably most important of all from the public health and preventive standpoint are the factors of damp and crowding, malnutrition and fatigue, lack of sunshine, inferior medical care and inadequate clothing.

Rheumatic fever is a chronic and recurrent disease requiring long and expensive medical and institutional care. Any control program should center around the "Rheumatic family" and should place emphasis upon case finding.

The program of prevention should cover many phases. We must strive to prevent the disease, to prevent heart damage once the disease has occurred and to prevent recurrences of the infection following the initial attack. To accomplish these things we must wage a campaign for educating the general public. We must support research to determine etiology, chemotherapy and immunotherapy. We must initiate programs for case findings, must furnish diagnostic centers for patients and provide hospital and convalescent care for the patients. Hospitals are best for the child in the acute stage, but for convalescence the rest home for convalescent rheumatics divided into small units and carefully guarded against upper respiratory infection is best. It is possible that for a period of several years anyway this disease is not cured but merely arrested, showing here a similarity to tuberculosis. It has been shown by Stroud, Martin, Swift and others that even in very intelligent homes and in those with higher incomes, it is difficult to keep a child on proper rest routine after he has begun to feel better and to prevent emotional problems among the family group. How much more difficult it is for those returning to unfavorable home conditions is shown by the fact that these have four times higher incidence of recurrence than those returning to good living conditions.

When the period of active infection is arrested, the task is just begun. Easily accessible facilities must be present for careful periodic check-ups of the patient and his family and for the prompt correction of medical, surgical or social pathology as it arises.

In 1939, the U. S. Department of Labor set aside certain Federal funds for the purpose of developing state programs for children with heart disease. These funds are available to states for extending and improving services, not for replacing services already being rendered by private and public agencies. The American Heart Association, the U. S. Public Health Service and the U. S. Bureau of the Census are coöperating in their respective fields to help conquer this disease, which from the viewpoint of age and distribution and its total mortality and morbidity ranks among the great unsolved problems of the era.

RHEUMATIC FEVER IN SAN FRANCISCO

No significant statistical data are available on rheumatic heart disease in San Francisco. This disease was first made reportable in California in 1942 and 18 cases were reported in that year. In 1943, 30 cases were reported and in 1944 to date, 46 cases. These meager figures obviously do not give the true picture and their paucity is the best argument for a widely publicized and intensive rheumatic fever program.

In statistical and epidemiological studies of rheumatic heart disease in children, there appears to be marked geographic differences in the incidence of the disease. From the available information, no definite conclusions can be drawn as

to the disease being an infectious process, though the streptococcal group is generally associated with the laboratory findings, or secondary to the poverty triad of insufficient and incomplete diets, poor housing and overcrowding. Perhaps all of these are concerned in some manner.

The magnitude of the rheumatic heart as a disease problem is recognized by health officials. The statistical estimates of the death rate from heart disease in the group from 5 to 24 years is an indication of the prevalence of rheumatic heart disease. Sanatorium care for rheumatic heart disease is the most logical means of checking the severity of the infection and possible recurrences. It is also believed worthwhile to try the effect of change from cold, damp regions to warmer ones.

Specific home care for those discharged from sanatoriums is likewise deserving of special consideration. It is hoped that the medical and lay populations will come to recognize that sanatorium care is as important for rheumatic heart disease as it is for active tuberculosis.

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Re: Medical Benevolence Funds

In the September issue of CALIFORNIA AND WESTERN MEDICINE editorial mention was made concerning the Benevolence Funds of the California Medical Association and Los Angeles County Medical Association.

The subject is one that should be of interest to many physicians. To reassure any C.M.A. members who may hold the belief that California is embarking into unknown seas, excerpts are here given from an article that appeared in the *Pennsylvania Medical Journal* (April, 1940, p. 1006):

Medical Benevolence Fund of the Medical Society of the State of Pennsylvania

The plan outlined below was inaugurated in Pennsylvania in 1905 by an allotment of 15c from the annual dues of each member of the Society. This allotment in the 35 years of the fund's history has averaged approximately 49c, and for the past 12 years has been $1.00 annually. On Dec. 31, 1939, the fund approximated $173,000 cash and bonds (par value).

In the wisdom of the Board of Trustees, only the contributions and the earnings from the fund are available for distribution. For many years the demand absorbed the earnings; therefore, the fund has grown and will continue to grow slowly under the allotment system unless those of our members who are financially able will contribute to it.

While it is not desirable that the benefits from this fund should at any time be looked upon as resembling the benefits operative under health, accident, or old-age insurance, the amount of money available for distribution should be sufficiently large to render real service to applicants (sick or aged) whose income is otherwise inadequate to provide the ordinary necessities of life.

The Woman's Auxiliaries of our state and county medical societies have contributed the magnificent sum of $35,000 to the fund (total contributions $38,500).

In the four years ending August, 1939, the fund averaged 33 beneficiaries, who received in the 48 months a total of $37,532.

At present (in 1940) the fund has 35 beenficiaries who received a total of $9,755 during the past 12 months, some in monthly payments, some quarterly, and some at irregular intervals according to the need.

The Committee on Benevolence, realizing the fund's inadequacy, herewith solicits subscriptions and legacies to be added to the principal. For your convenience blanks are attached. Contributions will be acknowledged through the columns of *The Pennsylvania Medical Journal.* Such contributions are recognized as proper for deduction in calculating one's annual income for tax purposes.

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Excerpt from Article 9, Section 3, Constitution.—Each year, out of the funds of this Society, the trustees shall appropriate a sum not to exceed $1.00 for each member, to be set aside by the Treasurer as a special fund to be known as the Medical Benevolence Fund. This fund shall be kept separate from other moneys, and may be invested by the Treasurer under the direction of the Board of Trustees, and shall be used only for the relief of pecuniary distress of sick or aged members, or the parents, widows, widowers, or children of deceased members.

Chapter 6, Section 6, By-Laws. — The Committee on Benevolence shall consist of the Secretary and 3 members to be selected annually by the trustees, at least one of whom shall be a trustee. This committee shall select its own chairman, secretary, and treasurer, and shall have absolute and confidential jurisdiction over the distribution of such part of the Medical Benevolence Fund as may be placed in its hands. No money shall be paid from its treasury except on warrant signed by the chairman and secretary of the committee, and an annual audit of its accounts shall be made by a committee of the trustees, the names of the beneficiaries being omitted. All beneficiaries shall be designated by number, and after each annual audit all communications tending to show the personality of the same shall be destroyed. This committee may solicit subscriptions, donations, and legacies to be added to the principal of the Medical Benevolence Fund. It may also receive subscriptions to be used for the relief of members in distress from the effects of any special catastrophe.

California State Industrial Accident Commission

Sacramento, Sept. 24.—Former Senator J. C. Garrison, who was appointed to the old State Industrial Accident Commission during the Olson administration, has raised a legal poser which has Governor Warren stumped.

Today, the Governor named five members to the new seven-member State Industrial Accident Commission.

The law creating the seven-member commission went into effect September 15. Garrison, whose term expired January 15, 1945, had not been replaced. Neither had he been reappointed. He now contends that since he was still functioning as a member of the commission when the new law became operative, he must be classified as a holdover member and continued on the new commission.

Alexander Watchman, San Francico, also appointed during the last administration, holds a commission which does not expire until January 15, 1946, so he clearly continues in office.

The Governor has withheld action on the seventh member on the commission. He named Everett A. Corten, San Francisco, as chairman; Daniel Murphy, Jr., son of Sheriff Murphy of San Francisco; Ernest B. Webb, Long Beach, Ralph E. Mustoe and Anthony Racine of Los Angeles as commissioners. Paul Scharrenberg, who has served in the dual capacity of chairman of the commission and director of the industrial relations department, becomes director of the department solely, at salary of $8,000 annually, instead of $6,000 as formerly.

Corten, who has served as chief counsel for the commission, will receive $7,500 annually, and his colleagues $7,200.—San Francisco *Chronicle,* September 25.

America is the last abode of romance and other medieval phenomena.

—Eric Linklater, *Juan in America.*

This great spectacle of human happiness [America].

—Sydney Smith, *Essays: Waterton's Wanderings.*